

APPARATUS AND METHODS FOR MODULATING REFRACTIVE INDEX

Abstract of the Invention

[0071] An iono-refractive structure that includes one or more ion insertion layers having a real portion and an imaginary portion of the dielectric constant is provided. While both the real portion and the imaginary portion of the dielectric constant change, the change in the imaginary portion is less than the change in the real portion at the wavelength of interest or at the operational wavelength. The iono-refractive structure may be suitable for the fabrication of or integration with tunable optical filters, wavelength-selective optical elements, active modulated interferometers, optical phase shifters, optical phased array beam steering, optical phased array beam tracking, tunable optical filters, sensors, variable lenses, tunable diffraction gratings, and other optical components.